

Title (en)

NOISE ADAPTIVE SOLID-STATE LIDAR SYSTEM

Title (de)

RAUSCHADAPTIVES FESTKÖRPER-LIDAR-SYSTEM

Title (fr)

SYSTÈME LIDAR À L'ÉTAT SOLIDE ADAPTATIF AU BRUIT

Publication

EP 3775979 B1 20240117 (EN)

Application

EP 19781037 A 20190327

Priority

- US 201862651209 P 20180401
- US 2019024343 W 20190327

Abstract (en)

[origin: US2019302246A1] A LIDAR system includes an optical transmitter comprising a plurality of lasers, each illuminating a FOV in an illumination region. A transmitter controller has outputs connected to respective laser inputs. The transmitter controller generates electrical pulses at the outputs so that the lasers generate light in a desired pattern in the illumination region. An optical receiver has an input FOV in the illumination region and comprises a plurality of detectors, each having a FOV and being positioned to detect light over the illumination region; and a TOF measurement circuit that measures the TOF from the lasers to the detectors. The receiver calculates range information. An adaptive optical shutter positioned between the optical transmitter and the optical receiver has a transparent or reflected region FOV, where the optical shutter restricts illumination at the input of the optical receiver to a region which is smaller than the optical receiver FOV.

IPC 8 full level

G01S 7/481 (2006.01); **G01S 7/484** (2006.01); **G01S 7/4863** (2020.01); **G01S 17/10** (2020.01); **G01S 17/50** (2006.01); **G01S 17/89** (2020.01); **G01S 17/931** (2020.01); **G02B 26/04** (2006.01); **G02B 26/08** (2006.01); **G05D 1/02** (2020.01)

CPC (source: EP KR US)

G01S 7/4815 (2013.01 - EP KR US); **G01S 7/4816** (2013.01 - KR); **G01S 7/4817** (2013.01 - EP US); **G01S 7/484** (2013.01 - EP KR US); **G01S 7/4863** (2013.01 - EP KR); **G01S 7/4865** (2013.01 - KR US); **G01S 17/08** (2013.01 - US); **G01S 17/10** (2013.01 - EP KR); **G01S 17/931** (2020.01 - EP KR US); **G02B 26/04** (2013.01 - EP KR); **G02B 26/0833** (2013.01 - KR US); **B60W 2420/408** (2024.01 - KR); **G02B 26/0833** (2013.01 - EP)

Cited by

US11513195B2; US11906663B2; US11762068B2; US11927694B2; US11965964B2; US12013488B2; US11740331B2; US11802943B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

US 11906663 B2 20240220; **US 2019302246 A1 20191003**; CN 111919137 A 20201110; EP 3775979 A1 20210217; EP 3775979 A4 20211124; EP 3775979 B1 20240117; EP 3775979 C0 20240117; JP 2021519926 A 20210812; JP 2022036224 A 20220304; JP 2023112041 A 20230810; JP 7324518 B2 20230810; JP 7330551 B2 20230822; KR 102506579 B1 20230306; KR 102604050 B1 20231122; KR 102634880 B1 20240208; KR 20200128435 A 20201112; KR 20220146711 A 20221101; KR 20230035701 A 20230314; US 2024019549 A1 20240118; WO 2019195054 A1 20191010

DOCDB simple family (application)

US 201916366729 A 20190327; CN 201980023446 A 20190327; EP 19781037 A 20190327; JP 2020552870 A 20190327; JP 2022002790 A 20220112; JP 2023100659 A 20230620; KR 20207029872 A 20190327; KR 20227036873 A 20190327; KR 20237007292 A 20190327; US 2019024343 W 20190327; US 202318475465 A 20230927